

TABLE 1

Conditions of Circumferential Surfaces of Cooling Rolls, Grooves and Ridges

	Average Width of Groove L_1 (μm)	Average Width of Ridge L_2 (μm)	Average Depth of Groove L_3 (μm)	Average Pitch L_4 (μm)	Ratio of Projected Area of Grooves (%)
Example 1	22.5	2.5	3.5	25.0	90
Example 2	20.0	40.0	3.0	40.0	50
Example 3	10.0	12.0	1.5	12.0	83
Example 4	27.0	90.0	8.0	90.0	30
Example 5	30.0	50.0	2.0	50.0	60
Example 6	28.0	68.0	5.3	68.0	41
Example 7	5.0	7.5	1.0	7.5	67
Example 8	9.5	15.0	2.5	15.0	63
Example 9	20.0	30.0	1.5	30.0	67
Comp.Ex.	-	-	-	-	-

TABLE 2

Properties of Melt Spun Ribbons (Example 1 to 5)

	Sample No.	Average Thickness (μm)	Ratio of Projected Area of Huge Dimples (%)	Ratio of Total Area of Dimples (%)	H _{C1} (kA/m)	Br (T)	(BH) _{m₃} (kJ/m ³)
Example 1	1	19	1.9	20	562	1.05	155
	2	19	1.5	18	564	1.04	154
	3	20	2.2	23	566	1.02	150
	4	20	1.6	19	561	1.03	152
	5	20	2.1	22	559	1.03	153
Example 2	1	20	2.3	26	548	1.02	149
	2	21	2.0	20	554	1.02	150
	3	22	2.2	23	546	1.00	145
	4	21	2.5	27	549	1.01	147
	5	21	2.2	22	550	1.01	148
Example 3	1	19	0.2	19	561	1.05	155
	2	18	0.1	12	570	1.06	162
	3	19	0.2	18	562	1.05	156
	4	19	0.2	16	563	1.05	158
	5	18	0.1	14	568	1.06	160
Example 4	1	19	3.5	31	538	0.99	144
	2	20	3.8	34	553	0.98	142
	3	25	3.6	32	542	0.96	140
	4	24	3.7	35	540	0.96	139
	5	21	3.7	32	550	0.97	141
Example 5	1	19	2.2	25	558	1.03	152
	2	22	2.1	23	552	1.02	151
	3	20	1.7	19	563	1.05	156
	4	21	1.9	20	560	1.04	154
	5	20	2.0	21	558	1.04	153

TABLE 3

Properties of Melt Spun Ribbons (Example 6 to 9, Comp. Ex.)

	Sample No.	Average Thickness (μm)	Ratio of Projected Area of Huge Dimples (%)	Area of Total Dimples (%)	Ratio of Total Area of Dimples (%)	H_{c1} (kA/m)	Br (T)	$(BH)_{mg^*}$ (kJ/m^3)
Example 6	1	23	2.1	25	557	1.01	148	
	2	22	1.7	20	555	1.03	151	
	3	21	2.0	23	554	1.02	149	
Example 7	4	22	1.5	24	552	1.02	150	
	5	23	1.8	22	548	1.01	147	
	1	18	0.3	13	570	1.06	160	
Example 8	2	19	0.5	20	569	1.06	159	
	3	18	0.2	11	572	1.07	162	
	4	20	0.3	15	564	1.04	157	
	5	19	0.4	18	567	1.05	158	
	1	21	0.8	18	552	1.04	153	
Example 9	2	20	0.7	17	556	1.03	152	
	3	19	0.9	16	562	1.05	156	
	4	21	1.2	21	555	1.03	151	
	5	19	1.0	19	560	1.04	154	
	1	22	2.3	26	557	1.01	148	
Comp. Ex.	2	20	2.0	24	562	1.02	150	
	3	21	1.8	20	560	1.01	149	
	4	21	2.1	25	559	1.03	152	
	5	19	1.9	23	564	1.02	151	
	1	19	15.5	43	330	0.81	73	
	2	32	18.0	46	280	0.67	57	
	3	20	22.3	53	303	0.77	69	
	4	25	19.0	49	319	0.79	70	
	5	17	25.5	58	295	0.75	60	

TABLE 4
Mean Crystal Grain Sizes of Magnetic Powders
and Magnetic Properties of Bonded Magnets

	Mean Crystal Grain Size (nm)	H_{c1} (kA/m)	Br (T)	$(BH)_{max}$ (kJ/m ³)
Example 1	29	562	0.87	110
Example 2	35	550	0.84	103
Example 3	25	565	0.89	117
Example 4	40	543	0.82	98
Example 5	30	560	0.87	108
Example 6	34	553	0.84	104
Example 7	27	568	0.88	116
Example 8	32	558	0.86	107
Example 9	33	561	0.86	105
Comp.Ex.	67	300	0.68	49